

AMENDMENTS TO THE SPECIFICATION

Please replace the first full paragraph on p. 7 with the following amended paragraph:

The welder of the invention has a current circuit 10 which is connected in parallel to the second rectifier circuit 5. In the parallel current circuit 10, a current generated by the voltage at the isolating transformer 4, which is suitable for welding, is passed through a current controlling circuit ~~11~~11A to be converted to a direct current by a third rectifier circuit 12, and further said direct current is passed through a DC reactor 13 and the DC reactor 6 to be supplied to the arc welding portion. The current controlling circuit ~~11~~11A is configured by semiconductor elements, and turns ON/OFF gates of the semiconductor elements in accordance with a signal from the controlling circuit 17 to control the current flowing therethrough. A reactor of 100 to 2,000 μ H is used as the DC reactor 13.

Please replace the second full paragraph on p. 8 with the following amended paragraph:

The controlling circuit 17 controls the current controlling circuit ~~11~~11A so that an adequate amount of current can flow from the isolating transformer 4 to the third rectifier circuit 12 and the DC reactor 13 through the current controlling circuit ~~11~~11A.

Please replace the first full paragraph on p. 9 with the following amended paragraph:

The current controlling circuit ~~44~~11A controls the alternating current. Alternatively, the current controlling circuit may be connected between the rectifier circuit 12 and the DC reactor 13 so as to control the direct current, whereby the same effects can be also expected.

Please replace the second full paragraph on p. 9 with the following amended paragraph:

Fig. 2 shows a second embodiment. The current controlling circuit ~~44~~11B is configured by capacitors 21, 22. In the case of Fig. 2, the turn ratio of the isolating transformer 4 is set so as to transform the voltage in the following manner. Namely, the voltage applied to the current controlling circuit ~~44~~11B is higher than that of being applied to the second rectifier circuit 5. Further, the capacitors 21, 22 are selected so as to have a capacitance at which charging is not completed even at 100%-ON operation of the inverter circuit 3.

Please replace the paragraph bridging pages 9 and 10 with the following amended paragraph:

Since the voltage that is obtained at the side of the isolating transformer 4, the current controlling circuit ~~44~~11B, and the rectifier circuit 12 is higher than that of the route from the isolating transformer 4 to the second rectifier circuit 5, the current is likely to flow through the route from the isolating transformer 4 to the rectifier circuit 12 via the current controlling circuit ~~44~~11B, however, said current is limited by the current controlling circuit ~~44~~11B which is configured by the capacitors 21 and 22.

Please replace the second full paragraph on p. 10 with the following amended paragraph:

In the short circuiting arc welding operation, during the short circuit time, the voltage applied to an isolating transformer is low, and, during the arc time, the voltage applied to the isolating transformer is high. From the fact such that an arc interruption always occurs during the arc time, in this invention, applies high voltage to the isolating transformer 4 during the arc time so that a larger amount of current can be supplied to the rectifier circuit 12 and the DC reactor 13 from the isolating transformer 4 through the current controlling circuit ~~44~~, 11B, whereby arc interruption can be prevented from occurring.

Please replace the paragraph bridging pages 10 and 11 with the following amended paragraph:

In the current controlling circuit ~~44~~, 11B, coils may be used in place of the capacitors. Fig. 3 shows the case where coils 31, 32 are used. Since a coil has a functionality of limiting an alternating current, it can be alternatively replaced with the capacitor.